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ABSTRACT

Objective job satisfaction questionnaires were administered to more than 26,000 U.S. Marines, as part of the Marine Corps' occupational task analysis of 16 separate occupational groups over a three-year period. Results indicate that intrinsic job factors are more potent than extrinsic factors, both as satisfiers and as dissatisfiers. Satisfaction with present job was moderately related to the decision to reenlist, with two groups of factors dominant: intrinsic factors related to job content; and extrinsic factors related to supervision and fair treatment. Satisfaction with overall career bore a much stronger relationship to the reenlistment decision, than did satisfaction with present job. Results were discussed in terms of possible differences between Marines and civilian personnel in their perception of their jobs. Development of a new job satisfaction instrument for use with future Marine Corps task analysis projects was outlined. (Author)

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EXAMINATION OF JOB SATISFACTION DATA IN THE U. S. MARINE CORPS TASK ANALYSIS PROGRAM

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Background.

The Marine Corps Task Analysis Program began in October 1969 to identify, collect, collate and analyze factual job data on job incumbents within each occupational field in the Marine Corps. Methodology includes personal observation and interview of Marines on the job and administration of an occupational questionnaire, which includes a detailed task inventory, to a large percentage of the Marines working in each occupational field under study. Field administration of these surveys is performed by traveling teams from the Office of Manpower Utilization. The data are processed and analyzed using the Computerized Occupational Data Analysis Programs (CODAP). Results provide the basis for manpower structure, management and policy recommendations which are forwarded to the Marine Corps Chief of Staff for approval. Supplementary job satisfaction questions, including three different versions of a job satisfaction inventory, have been included in the task analysis surveys of 15 occupational fields. Job satisfaction data have been collected on more than 26,000 Marines, which is about 14 percent of total Marine Corps personnel strength.

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Until the Spring of 1974, no systematic attempt was made to analyze job satisfaction data, nor were job satisfaction findings highlighted in the occupational field analysis reports. Initially, inclusion of a job satisfaction inventory was for the purpose of establishing a preliminary data file to provide job satisfaction indicators in a wide range of occupational groupings within the Marine Corps. Comparative analysis was held in abeyance until a representative group of surveys had been completed.

Early Job Satisfaction Irventories.

The first 9 studies (Total N = 19,937) contained a 33-item job satisfaction inventory developed by the Canadian Forces Personnel Applied Research Unit (CF PARU) (Otke, 1970). In addition to these 33 items, respondents were asked to indicate their level of overall satisfaction with their present jobs and their overall satisfaction with their Marine Corps careers. Scoring was intended to be based on a subtractive model similar to that used by Porter (1961), whereby respondents were asked to indicate along a 7-point continuum for each listed job factor "How much is there now" and "How much should there be?" This instrument required respondents to make abstract judgements regarding such concepts as JOB APPEAL, GUIDANCE & TERMS OF REFERENCE and OPPORTUNITY FOR ACHIEVEMENT. The subtractive scaling on this instrument caused serious problems in handling the data through the established CODAP programs and necessitated some laborious additional processing. Based on a convincing argument

by Wanous & Lawler (1972), that "is now" scores provide a better correlation with overall satisfaction measures (which was substantiated by some limited local comparisons) the subtractive scoring was discontinued. All studies that used this scale are now being analyzed using "is now" scores only. The decision to select this scoring system was critical because results are very dissimilar when the same sampling is scored both ways. Rank order correlations (job factors listed in order of amount of satisfaction reported) between the two methods average about 0.55.

More recently CF PARU replaced the 33 item inventory with an inventory consisting of 16 job factors plus 5 attitude items apparently aimed at identifying the "motivation seeker" (Herzberg, 1966), and 3 items addressing overall job and career satisfaction. The Marine Corps used this instrument in four occupational field analyses (Total N = 5813). This 'second Canadian' instrument's items were quite concrete but tended to be complex and contained relatively difficult vocabulary (Example: My superior provides me with adequate and ongoing feedback on my performance). Respondents indicated agreement or disagreement with each such item on a 7-point Likert-type scale. The 'second Canadian' instrument, being somewhat shorter, failed to tap every job factor that had been covered by the earlier instrument.

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Initial Analysis

Four occupational field studies were selected for preliminary analysis. Two of the occupational groups (Food Services & Special Communications) had been administered the earlier 33-item inventory and were selected because of their many contrasts. As a group, special communicators have the highest scores in the Marine Corps on tests of mental ability and language aptitude. They are in prestigious assignments, enjoy rapid promotion and frequently get the most sought-after duty assignments. By contrast the food service personnel, on the average, have low general classification scores, are in low-prestige assignments and have a slow promotion rate.

The other two occupational groups had been administered the later, 16-item inventory. Both groups (Electronics Maintenance and Data Processing) were in technical fields, characterized by high aptitude test scores. It was not possible to compare two disparate occupational groups, as all four studies that employed the 16-item inventory had very similar populations.

The relative contribution of intrinsic and extrinsic job factors to job satisfaction was of particular interest. In an earlier, unpublished study it was found that intrinsic job factors were the primary contributors to both satisfaction and dissatisfaction for a group of enlisted Marines. This finding

was contrary to Herzberg's Motivator-Hygiene Theory (Herzberg, Mausner & Snyderman, 1959). It is suspected that the Marine Corps' recruiting program attracts a disproportionate share of "motivation seekers."

In the 33-item inventory there were 13 items representing intrinsic job factors. Of the 16-item set, 6 were intrinsic. Categorization in each case was based on whether the rewards associated with the job factor are internally mediated or externally mediated. Categorization was of necessity judgemental and there is room for debate as to the purity of some of the items.

Analysis of the total population in each occupational field lends weak support to the Motivator-Hygiene Theory. There was a very mild trend for the levels of satisfaction to be positive for the intrinsic items and negative for the extrinsic items. This trend held true for all four occupational fields analyzed. There were exceptions to the trend in each occupational group, however, and some specific differences between groups tended to cast doubt upon the generality of the effect. Closer examination of certain subgroups within each population quickly showed that ostensible patterns appearing in the total population were misleading and that the rank ordering of job factors was actually the result of averaging between some very dissimilar subpopulations. When these subpopulations were considered separately, a much clearer intrinsic-extrinsic relationship emerged.

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Analysis began with the special communications occupational group. Respondents who reported low overall job satisfaction (lowest 28.7%, N = 180) were contrasted with those who reported high overall job satisfaction (highest 30.4%, N = 191). Significance of absolute levels of satisfaction or dissatisfaction, and differences between subpopulations were assessed by a series of *t*-tests. The 'satisfied' group was satisfied ($p < .01$) with 20 job factors. Intrinsic factors comprised the top 8 factors and all but one of the 13 intrinsic items were in the satisfied category. (The 13th was also satisfied, but $t = 1.42$, n.s.). The 'satisfied' group was dissatisfied with 3 job factors, all extrinsic. The 'dissatisfied' group was satisfied with only two factors, both extrinsic, and dissatisfied with 27 factors. Of these, 5 of the bottom 7 factors were intrinsic, and 12 of the 13 intrinsic factors appeared in the dissatisfied ($p < .01$) category. Again, the remaining intrinsic factor, though tending in the expected direction, failed to reach significance ($t = 2.15$).

The 33 items were then ranked in order of strength of association with the measure of overall job satisfaction. Here an even stronger relationship appears. The 10 most strongly related factors are all intrinsic. The remaining three intrinsic factors are all accounted for in the next seven ranks, and the 18 least-predictive factors are all extrinsic factors. In this particular subgroup of Marines, intrinsic sources of satisfaction or dissatisfaction are clearly dominant.

Carrying over the same methodology to the three other occupational groups has validated this intrinsic-extrinsic relationship. For both the data processing and the electronics maintenance personnel, the 6 intrinsic items were the 6 factors most strongly related to overall satisfaction (in the 16 item scale). Only for the food services personnel did this relationship weaken, however even here 9 of the 12 most strongly related factors to overall satisfaction were intrinsic while the weakest 9 were all extrinsic.

The next step in analysis was to attempt to determine if the intrinsic-extrinsic dimension is as systematically related to personnel retention as it is to overall satisfaction. Both in the United States Air Force and in the Canadian Armed Forces, a statement of reenlistment intent has been found to be an accurate predictor of reenlistment, particularly if the decision must be made within one year. Respondents were categorized according to their stated intent either to reenlist or to leave the service at the end of the current tour, and mean satisfaction/dissatisfaction scores were computed for each job factor.

Again, the intrinsic job factors were found to be more strongly related to the criterion (reenlistment intent) than were the extrinsic job factors, however the purity of this relationship was degraded to a surprising extent. Several extrinsic factors displaced intrinsic factors near the top of

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the hierarchy and it was discovered that the overall strength of association of the work factors with reenlistment was quite low. Multiple correlation coefficients (job satisfaction:reenlistment intent) tended to range only between about .30 and .50. By contrast, multiple correlation coefficients based on overall job satisfaction as a criterion had tended to range between .75 and .85.

The reasons became clearer when it was seen that the correlation between scores on questions of present job satisfaction and questions of career satisfaction were only moderate (r = .42 to .68). A single global question regarding career satisfaction is, universally, a better predictor of retention than is a 33-item set of questions relating satisfaction to present job. Marines apparently view their present jobs as temporary, so job satisfaction and career satisfaction are different constructs for a military population. Accordingly, the job satisfaction inventory used by the Office of Manpower Utilization, asking each question in the context of present job, will have some defects as a gauge of personnel retention.

Preliminary Findings.

The following findings must be considered tentative, as they are based on analysis of only four of 39 Marine Corps occupational fields, however certain trends have emerged that show promise. Despite the relatively weak relationship between current job satisfaction and retention in the Marine Corps, certain job factors tend to be stable across various occupational groups:

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a. The content factors related to Pride, Challenge, and Interesting Work, and the context factors related to Fair Treatment and Quality of Supervision seem to have a powerful effect on the reenlistment decision, regardless of the occupational field.

b. Other factors appear almost totally unrelated to the reenlistment decision. Examples include Living/Working Conditions, Pay, Rules and Regulations, Relations with Co-Workers & Subordinates, Utilization of Resources and Guidance. In some cases (eg. Rules & Regulations) the relationship is weak because of universal dissatisfaction, even among those reenlisting. For this reason two analyses are now performed on each occupational group: (1) to determine which factors are most influential on retention; and (2) to determine which factors are universal sources of dissatisfaction.

c. Certain factors, though not influential for most occupational fields can become critical to certain subgroups. For example, satisfaction with Pay which is not ordinarily salient, is strongly related to retention for enlisted data processing personnel in their first tour of enlistment. This is probably a matter of perceived alternatives open to the Marine in a high-paying civilian data processing job. There were other factors in other subgroups that rose to saliency in a like manner, illustrating the complexity of the satisfaction-retention relationship, and the potential influence of moderator variables which confound any attempt to discover simple relationships.

Job Satisfaction Inventory Development.

Based on early experience with the two instruments developed by CF PARU, a new job satisfaction inventory is under development by the U. S. Marine Corps. Six design goals were set for the new instrument:

a. Content Representativeness. Every job factor that is a potential source of dissatisfaction for any group of Marines should be included.

b. Brevity. This requirement is in conflict with content representativeness. The job satisfaction inventory is administered at the same time as an occupational task inventory consisting of several hundred items. Fatigue is a factor.

c. Simple Vocabulary. A large segement of the population will have limited reading ability. Items must be worded in a language that can be understood and responded to in a consistent manner by all Marines. Meeting this particular criterion is absolutely essential to the success of the program.

d. Concreteness. Respondents should not have to make judgements about abstract concepts (eg. "job appeal"). Items should be worded in terms that have a consistent meaning to all respondents.

e. Compatibility with Answer Book Format. The optically scannable answer book used in the Marine Corps Task Analysis Program solicits responses on a seven-point scale with verbal anchors ranging from "very little" through "average" to "very

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much". Wording of job satisfaction inventory items should be in a context so that these verbal anchors make semantic sense (this was a shortcoming of both earlier scales, which required supplementary instructions to be used with the answer sheet).

f. Sensitivity to Individual Differences in Satisfaction-seeking. Rather than assuming that every Marine seeks satisfaction in every job factor, respondents should have a means to indicate those factors they consider unimportant.

A job satisfaction inventory, listing 26 job factors plus questions on overall job and career satisfaction, is being administered to three occupational groups (Total N = 3450). This inventory meets all six established design criteria, or at least provides a good compromise between those criteria that conflict. Each respondent is asked to check only those factors the respondent wants in his job, and then indicate, for those factors checked, how much he gets in his present job. Table 1 contains a list of the 26 factors.

The wording of some of the items may appear awkward. Several items were re-worded as a result of local pilot studies in an effort to attain essential agreement among a panel of 22 judges as to the intrinsicness or extrinsicness of each job factor. In retrospect, it is considered that there was more sacrificed than gained with this approach. The wording will be simplified for future inventory administrations, after analysis of the results of the current round of samples.

Future Directions

Current efforts are being directed toward identification of those positive steps the Marine Corps can take to correct the areas of job dissatisfaction discovered through the Task Analysis Program. Since it appears that the most salient factors affecting retention involve the Marine's attitude toward intrinsic aspects of the job (challenge, pride in accomplishment, interest in the work) or the way he is supervised (competence of seniors, relations with seniors, fair treatment), simple solutions are unlikely.

Future Task Analysis reports will contain a summary of job satisfaction findings in each occupational field. These reports are staffed by the occupational field sponsor in the Marine Corps Headquarters and are forwarded to the Chief of Staff for approval of recommendations. In addition, job satisfaction reports will be furnished to a growing list of interested agencies within the Marine Corps including those concerned with recruiting, career planning, personnel management and leadership development. It is expected that the most fruitful ground for solving our most pressing job satisfaction areas will be through a dual effort to (1) achieve a better Marine-job match and (2) enhance leadership and human relations effectiveness at every level.

We have developed some appreciation for the complexity of the issues surrounding Marine Corps job satisfaction. We know that the problems are not simple, and neither will be the solutions. Nevertheless, we intend to continue to seek those solutions and to carry on our research, in support of an enlightened personnel policy.

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TABLE 1

Job factors included in current Marine Corps job satisfaction inventory.

1. Being treated fairly.
2. Doing interesting work.
3. Being respected by other Marines.
4. Having a supervisor who cares about your problems.
5. Being at a duty station you like.
6. Being well paid.
7. Feeling that you are trusted.
8. Knowing you are doing an important job.
9. Being proud of what you accomplish.
10. Good living conditions.
11. Getting the recognition you deserve.
12. Seeing yourself become more proficent.
13. Having a job that lets you lead a satisfying personal life.
14. Good working conditions.
15. Being respected by civilians.
16. Being kept informed.
17. Ability to act on your own initiative.
18. Having competent leaders.
19. Being of service to others.
20. Having dependable co-workers.
21. Opportunity for promotion.
22. Opportunity to do primary job.
23. Being with people you like.
24. Being well-trained for your job.

25. Opportunity to prove yourself.

26. Seeing the results of your work.

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OMU #2 JOB SATISFACTION INVENTORY

SPECIAL INSTRUCTIONS, PART 4

In part 4, you will use the "TIME SPENT" blocks to show how much of each item you get in your PRESENT job, You can choose answers all the way from "VERY LITTLE" to "VERY MUCH". Remember, what you are answering each time is "How much of this do I get in my present job?"

INSTRUCTIONS:

1. DO fill in the "I DO" block for each question,

2. DO show how much you get by marking one of the blocks in the "TIME SPENT" section.

3. DO NOT make any marks in the "TRAINING" section,

Question number will be the first question in Part 4, Be sure that your response in the answer booklet matches the correct question number.

REMINDER

1. Fill in the "I DO" block for every question.

2. Use the "TIME SPENT" blocks to show how much you get in your present job.

*1. Feelings of pride in being a Marine.

2. Being paid enough.

3. A boss who will help when you have a problem.

4. A chance to be promoted.

5. Being treated with respect.

6. A boss who lets you know when you do a good job.

7. Working hours that are OK.

*8. A chance to prove yourself.

9. Being with people you like.

*10. A job that is important.

*11. Being of service to others.

12. Good working conditions.

13. Rules and regulations that are fair.

*14. Having enough responsibility.

15. Having the kind of personal life you want.

*16. Being proud of your work.

*17. The kind of work you enjoy doing.

18. A boss who treats you fairly.

*19. Seeing yourself improve in your job.

*20. Work that makes good use of your ability.

21. Being kept informed.

22. Feeling that you are trusted.

23, Other Marines you can depend on.

24. A boss who knows his own job.

25, A job your family thinks is OK.

For the next two questions (Questions and)

(1) Fill in the "I DO" block for both questions.

(2) Use the "TIME SPENT" section to show how much overall satisfaction (anywhere from "VERY LITTLE" to "VERY MUCH") you have had from:

26, Your present job (overall).

27. Being in the Marine Corps (overall).

Note:

*Intrinsic item (these asterisks do not appear on the actual inventory)

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SUBTRACTIVE JOB SATISFACTION SET
(FIRST CANADIAN)

*OPPORTUNITY FOR ACHIEVEMENT

*JOB APPEAL

TRAINING FOR JOB

RESOURCES TO DO JOB

RECOGNITION FOR WORK DONE

*RESPONSIBILITY AND INDEPENDENCE IN CARRYING OUT JOB.

FREEDOM FROM RESTRICTIVE RULES AND REGULATIONS

OPPORTUNITY FOR PROMOTION

~~*JOB PROCEDURES~~

COMPETENCE OF SENIORS

ADEQUACY OF LIVING CONDITIONS

COMPETENCE OF SUBORDINATES

GUIDANCE AND TERMS OF REFERENCE

*OPPORTUNITY TO DO PRIMARY JOB

ADEQUACY OF RELATIONS WITH SENIORS

ADEQUACY OF WORK SURROUNDINGS AND ATMOSPHERE

PAY AND ALLOWANCES

*OPPORTUNITY FOR GROWING AND DEVELOPING

ADEQUATE OPERATION OF THE MILITARY SYSTEM

STATUS WITHIN THE ORGANIZATION

*OPPORTUNITY TO SEE WORK RESULTS

*OPPORTUNITY TO HAVE PRIDE IN CORPS

*OPPORTUNITY FOR PROVING SELF

ACCEPTANCE OF RECOMMENDATIONS

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**~~FREQUENCY OF JOB CHANGES~~

*WORTHWHILENESS OF WORK

*OPPORTUNITY TO CONTRIBUTE

*JOB CHALLENGE

*OPPORTUNITY TO DO ENTIRE JOB

FAIR TREATMENT BY THE SYSTEM

PROPER UTILIZATION OF MONEY AND/OR RESOURCES

*OPPORTUNITY FOR HELPING OTHERS

ADEQUACY OF RELATIONS WITH SUBORDINATES

(A, HOW MUCH IS THERE NOW? B. HOW MUCH SHOULD THERE BE?)

DEGREE OF SATISFACTION DERIVED FROM JOB

DEGREE OF SATISFACTION FROM OVERALL CAREER

1. COMPLETELY SATISFIED----------7. COMPLETELY DISSATISFIED

NOTES:

*INTRINSIC JOB FACTOR

**THIS ITEM NOT INCLUDED IN ANALYSIS

(these asterisks do not appear in the actual inventory)

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'SECOND CANADIAN' JOB SAT INVENTORY

*THE WORK I DO IS INTERESTING TO ME.

*MY DAILY WORK MAKES GOOD USE OF MY SKILLS AND KNOWLEDGE.

*MY PRESENT JOB HELPS ME TO PROGRESS PROFESSIONALLY.

*MY JOB ALLOWS ME TO ACCOMPLISH SOMETHING WORTHWHILE.

*MY JOB ALLOWS ME TO SEE OR KNOW THE RESULTS OF MY EFFORTS.

I AM PAID FAIRLY FOR THE WORK I DO.

I GET THE ON-THE-JOB RECOGNITION I DESERVE FOR MY PERFORMANCE.

*DOING MY PRESENT WORK GIVES ME A FEELING OF PRIDE AND SELF-RESPECT.

MY SUPERIOR PROVIDES ME WITH ADEQUATE AND ON-GOING FEEDBACK ON MY PERFORMANCE.

I HAVE THE COOPERATION AND SUPPORT OF MY CO-WORKERS NECESSARY TO DO MY WORK EFFICIENTLY.

MY SUBORDINATES ARE WELL-QUALIFIED AND CAN PERFORM IN A WAY THAT ENABLES ME TO MEET MY JOB OBJECTIVES.

I AM ALLOWED ENOUGH FREEDOM IN MY JOB TO EXERCISE SOME PERSONAL INITIATIVE.

RULES AND REGULATIONS ARE INTENDED TO HELP YOU DO YOUR JOB. DO THE RULES AND REGULATIONS GOVERNING YOUR JOB ENHANCE YOUR EFFICIENCY?

I AM PROVIDED WITH THE ESSENTIAL RESOURCES (EQUIPMENT, SUPPLIES AND STAFF) I NEED TO ACCOMPLISH MY JOB.

THE PRESENT WORKING CONDITIONS (FACILITIES, SURROUNDINGS) ARE FUNCTIONAL AND ENHANCE MY EFFECTIVENESS.

MY WORK DOES NOT SERIOUSLY INTERFERE WITH MY FAMILY AND SOCIAL LIFE.

MOST THINGS IN LIFE ARE LESS IMPORTANT THAN WORK

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I AM VERY MUCH INVOLVED PERSONALLY IN MY WORK

I AM REALLY A PERFECTIONIST ABOUT MY WORK

THE MOST IMPORTANT THINGS THAT HAPPEN TO ME INVOLVE MY WORK

THE MAJOR SATISFACTIONS IN MY LIFE COME FROM MY WORK

OVERALL, I AM SATISFIED WITH MY PRESENT JOB

I AM SATISFIED WITH MY MILITARY CAREER TO DATE

MY PRESENT JOB IS AT LEAST USEFUL TO ENABLE MY UNIT TO MEET ITS OBJECTIVE.

NOTE;
*INTRINSIC ITEM (asterisks do not appear in the actual inventory)
Items between dotted lines were not included in analysis, Dotted lines did not appear in actual inventory.